

### REMARKS

Claims 1-19 are pending. Claims 20-21 are cancelled without prejudice. Claims 1-21 are rejected under 35 U.S.C. § 103(a).

Independent claims 1, 9, 13, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over applicants' admitted prior art (AAPA) in view of Tröster et al., An Interpolative Bandpass Converter on a 1.2- $\mu$ m BiCMOS Analog/Digital Array, VOL. 28, NO. 4, 471-477 (April 1993). In an Opinion of July 14, 2008, the Board of Patent Appeals and Interferences decided the teachings of Troster et al. "are merely cumulative to the teachings already present in the Appellants' admitted prior art (Finding of Fact 3)." Claims 1, 9, 13, and 18 are currently amended to include more specific features of the present invention.

Claim 1 recites "an analog IF-to-digital baseband converter (34, Figure 3) formed on said first integrated circuit (31) and coupled to said mixer (33) for converting said analog IF signal (37) into a digital baseband signal (38), the analog IF-to-baseband converter including an analog-to-digital converter (42, Figure 4) having a first sampling frequency ( $f_s$ ) for a first application and having a second sampling frequency different from the first sampling frequency for a second application." (reference numerals added). This embodiment of the present invention is described in detail at page 8, lines 3-10.

Claim 9 recites "an input (38, Figure 3) for receiving a digital baseband signal (on 38) from an RF receiver apparatus (31), said RF receiver apparatus comprising mixing circuitry (33) formed on a first integrated circuit (31) for mixing an analog RF signal down to an analog IF signal (37) having a first frequency ( $f_c$ ) for a first application and having a second frequency different from the first frequency for a second application, and an analog IF-to-digital baseband converter (34) formed on the first integrated circuit and coupled to receive said analog IF signal." (reference numerals added). This embodiment of the present invention is described in detail at page 8, lines 3-10.

Claim 13 recites "an analog IF-to-digital baseband converter (34, Figure 3) coupled to said mixer (33) for converting said analog IF signal (37) into a digital baseband signal (38), the analog IF-to-digital baseband converter including an analog-to-digital converter (42, Figure 4) responsive to a first clock signal derived from the reference clock signal and a matched filter responsive to a second clock signal different from the first clock signal and derived from the reference clock signal." (reference numerals added). This embodiment of the present invention is described in detail at page 8, lines 8-10.

Claim 18 recites "filtering the digital baseband signal (40, Figure 4) at a first sampling frequency ( $f_s$ ) for a first application and filtering the digital baseband signal at a second sampling frequency different from the first sampling frequency for a second application." (reference numerals added). This embodiment of the present invention is described in detail at page 8, lines 3-10.

In view of the foregoing, applicants respectfully request reconsideration and allowance of claims 1-19. If the Examiner finds any issue that is unresolved, please call applicants' attorney by dialing the telephone number printed below.

Respectfully submitted,



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